

# 10T. Post-Event Tracking of Emergency Responder Health and Function

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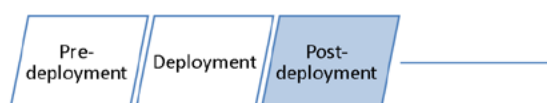
## Disaster Mental and Behavioral Health Indicators and Example Measures

Potentially important mental and behavioral health indicators (and example measures) that responders may consider for surveillance analyses and primary data collection efforts are listed below. If using baseline screeners for emotional health status, these measures should be repeated to evaluate changes/trends:

- Brief Symptom Inventory (BSI)
- Kessler questionnaire (K10)
- SPRINT-E
- Sheehan Disability Scale (SDS)
- Medical Outcomes Study Short Form-12 (MOS SF-12): quality of life indices
- Patient Health Questionnaire from PRIME-MD (PHQ): modules for depression, anxiety

## Indicators and Example Measures/Tools

Indicator	Example Measure/Tool
Serious Psychological Distress	Kessler-6 or 10
Alcohol and drug use/abuse	C.A.G.E. –AID or BRFSS
Change in health-risk behaviors (job safety compliance, seatbelts, speeding, smoking, drug use)	*
Tobacco use	BRFSS
Perceived stress	Perceived Stress Scale (PSS)
Suicidal/homicidal ideation or behavior	*
Violence	*
Capacity for self/dependent care	*
Financial stressors/income/employment status	*
Health-related quality of life/ Mentally healthy/unhealthy days	BRFSS
Sleep-loss	BRFSS



Adherence to public health recommendations (i.e., infection control/restricted activities/evacuation)	*
Depression	BRFSS Optional module
Anxiety	BRFSS Optional module
Preexisting chronic conditions	*
Barriers to Mental/behavioral health care (beliefs, stigma, logistics/access to services and medications)	*
Psychosomatic Symptoms (somatization)	PHQ-15
Family Dynamics & Conflict	*
Child Stress/Anxiety	RCMAS
Child Abuse & Neglect	*

**\* Indicates no specific measure recommended or use a measure adapted to specific population/survey method**

## Description of Example Measures

### *NIOSH Mental Health Questions*

To view the mental health items that are part of the NIOSH Deepwater Horizon Worker Health Survey please see the [Mental Health](#) section of the survey. This section assesses depressive symptoms, alcohol and substance abuse, social support, and access to mental health professional support. The NIOSH Deepwater Horizon Worker Health Survey is located in subsection [9T. Responders Out-Processing Assessment](#) of the Tools Section of this document.

## *Individual Measures*

### **CAGE**

- This simple four-question self-test specifically focuses on alcohol use, and not on the use of other drugs.
- The CAGE Questionnaire was developed by John Ewing. No permission is necessary for using the questionnaire, unless it is used in a profit-making endeavor.
- To access the questionnaire, see Ewing JT [1984]. Detecting alcoholism: The CAGE Questionnaire. JAMA 252(14):1905–1907.

### **CAGE-AID (CAGE Questions Adapted to Include Drugs)**

- Screens for alcohol use and has been adapted to include drugs
- An easy-to-administer interview consisting of eight items
- For more information on CAGE-AID, see Brown RL, Rounds LA [1995]. Conjoint screening questionnaires for alcohol and drug abuse: criterion validity in a primary care practice. Wis Med J 94(3):135–140.



### Kessler-6 (K-6 or K-10)

- Designed to be sensitive to discriminate serious mental illness
- A 6-item self-report or interview in less than 2 minutes; preferred in screening for DSM-4 mood or anxiety disorders
- Used in past or currently by the National Health Interview Survey (NHIS) and National Household Survey on Drug Abuse, Katrina
- [http://www.hcp.med.harvard.edu/ncs/k6\\_scales.php](http://www.hcp.med.harvard.edu/ncs/k6_scales.php)

### Patient Health Questionnaire (PHQ-15)

- Useful in screening for somatization and in monitoring somatic symptom severity in clinical practice and research
- Brief, self-administered questionnaire
- The scale and further information can be found in the following article: Kroenke K, Spitzer RL, Williams JB [2002]. The PHQ-15: validity of a new measure for evaluating the severity of somatic symptoms. *Psychosom Med* 64(2):258–66.

### Perceived Stress Scale (PSS)

- Measures degree to which situations in one's life are appraised as stressful (the questions in the PSS ask about feelings and thoughts during the last month)
- The questionnaire is available in several languages and consists of a 14-item self-report.
- Available for free from Dr. Sheldon Cohen: <http://www.psy.cmu.edu/~scohen/>
- Used in Hurricane Hugo

### Revised Children's Manifest Anxiety Scale (RCMAS)

- Assesses the degree and quality of anxiety experienced by children and adolescents.
- 37-item instrument, can be administered individually or to a group.
- Used in response to Hurricane Hugo.
- Can be purchased at: [http://portal.wpspublish.com/portal/page?\\_pageid=53,234661&\\_dad=portal&\\_schema=PORTAL](http://portal.wpspublish.com/portal/page?_pageid=53,234661&_dad=portal&_schema=PORTAL)

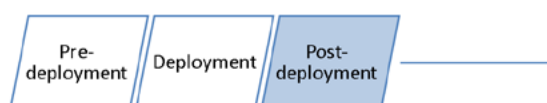
### Additional Examples of Measures/Tools

#### PsySTART-Oil Spill Incident Modified Version

- Assesses impact of traumatic exposures, loss, post-event adversities, loss of social support, and injury/illness
- Comprising 16 items, it can be administered in less than 1 minute by non-mental health professionals
- Contact [MSchreiber@mednet.ucla.edu](mailto:MSchreiber@mednet.ucla.edu)

#### Acute Stress Disorder Scale (ASDS)

- Indexes acute stress disorder and predicts PTSD; based on DSM-4 criteria and assesses trauma and stress responses
- A 19-item self report
- Used with Hurricane Katrina evacuees



- Scale can be found in Acute Stress Disorder Scale: A Self Report Measure of Acute Stress Disorder, by Richard Bryant et. al., at: [http://www.psych.on.ca/files/nonmembers/AcuteStressDisorderScale\\_DRN\\_March\\_5\\_2010.pdf](http://www.psych.on.ca/files/nonmembers/AcuteStressDisorderScale_DRN_March_5_2010.pdf)

### Brief COPE

- Useful instrument in health-related research that measures coping
- A 28-item questionnaire consisting of 14 scales of 2 items each
- Used after September 11<sup>th</sup> attacks, Hurricane Andrew
- Scale can be found in the following article: Carver CS [1997]. If you want to measure coping but your protocol's too long, consider the brief COPE. *Int J Behav Med* 4(1):92–100 [[http://www.ssc.wisc.edu/wlsresearch/pilot/P01-R01\\_info/aging\\_mind/Aging\\_AppB18\\_BriefCopeScale.pdf](http://www.ssc.wisc.edu/wlsresearch/pilot/P01-R01_info/aging_mind/Aging_AppB18_BriefCopeScale.pdf)].

### Further Reading

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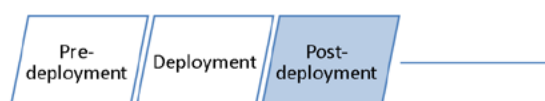
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## Additional Resources for Post-event Tracking

### Army Post-Deployment Evaluation Form

<http://www.dtic.mil/whs/directives/infomgt/forms/eforms/dd2796.pdf>

This form is a post-deployment health assessment created and used by the Army. This is an electronic form filled out by the returning personnel and a physician.

### NIOSH Pocket Guide to Chemical Hazards

<http://www.cdc.gov/niosh/npg/>

*Pocket Guide* presents key information and data in abbreviated tabular form for 677 chemicals or substance groupings. The industrial hygiene information found in the *Pocket Guide* should help users recognize and control occupational chemical hazards. The *Pocket Guide* contains information on Chemical Name, Structure/Formula, CAS Number, RTECS Number, DOT ID and Guide Numbers, Synonyms and Trade Names, Conversion Factors, Exposure Limits, Immediately Dangerous to Life and Health (IDLH), Physical Description, Chemical and Physical Properties, Incompatibilities and Reactivities, Measurement Methods, Personal Protection and Sanitation Recommendations, First Aid, Respirator Selection Recommendations, Exposure Route, Symptoms, and Target Organs.

### NIOSH Publication No. 2008-115: First Responders: Protect Your Employees with an Exposure Control Plan

<http://www.cdc.gov/niosh/docs/2008-115/>

Pamphlet that gives basic information on the components of an exposure control plan

### NIOSH Publication No. 2002-107: Traumatic Incident Stress: Information for Emergency Response Workers

<http://www.cdc.gov/niosh/docs/2002-107/>

This two-page handout educates workers about traumatic incident stress, including how they can recognize it and what they can do about it.

### Screening and Surveillance: A Guide to OSHA Standards

<http://www.osha.gov/Publications/osh3162.pdf>

This document was created by OSHA as a quick reference to help locate and implement the screening and surveillance requirements of the Federal OSHA standards published in Title 29 of the Code of Federal Regulations (29 CFR) regarding certain chemicals, substances, and other work hazards. This guide provides a general overview of OSHA requirements.

